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REMARKS

The claims of this application are being resubmitted in unamended form on the grounds that the Examiner has failed to establish *prima facie* obviousness. The cited references represent non-analogous art, and the combinations proposed by the Examiner are without justification.

The Abstract and specification of the application have been amended herein, as requested by th e Examiner in the Office Action.

Claims 1-2 and 5-8 stand rejected under 35 U.S.C. §103(a) over Coronel et al. ('294) in view of McCay et al. ('056). According to the Examiner, "Coronel et al. teaches the claimed invention (claim 1) substantially as claimed ...". The Examiner then goes on to reference portions of the Coronel et al., as though they read on Applicant's invention when, in fact, they do not. For example, the Examiner states that because Coronel et al. contains a database regarding "the history of a wafer (abstract)," this somehow relates to direct metal deposition, but it does not. In fact, Coronel et al. is non-analogous art, in that it is not directed to any sort of direct-metal deposition process wherein material is added to a melt pool to solidify. The step of Applicant's method in question reads "creating a database including acceptable direct metal deposition process parameters based upon previously obtained empirical data;" Coronel et al. simply does not teach this step.

The Examiner concedes, however, that Coronel et al. does not teach the steps of measuring one or more dimensions of the melt pool and monitoring the accumulation of residual stress of the object, attempting to combine the teachings of McCay et al. to address this deficiency. However, McCay et al. is also non-analogous art, and the teachings thereof do not apply to this invention or that of Coronel et al. McCay et al. is directed to a laser-based method of improving a surface, and has nothing to do with the fabrication of objects. The Examiner's interpretation of the passages of McCay et al. used for the purposes of rejection is also misguided. With respect to Applicant's step of monitoring the accumulation of residual stress of an object, the Examiner uses column 1, lines 28-30 of McCay et al. which read "[I]t is therefore the object of the present invention to provide metallic surfaces subject to oxidation, corrosion and rusting with a surface alloy layer for protecting such metallic surfaces without the flaking and separation ...". Applicant queries, what does this have to do with the accumulation of residual stress?

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With regard go the limitation of "measuring one or more dimensions of a melt pool," the Examiner points to column 13, lines 11-13, which reads as follows "[V]ideo imaging of the laser/surface interaction region is also useful in providing proper positioning of the laser beam relative to the surface of the workpiece." Again, what does this have to do with measuring one or more dimensions of a melt pool?

In rejecting claims under 35 U.S.C. §103, the Examiner must provide a reason why one having ordinary skill in the pertinent art would have been led to combine the cited references to arrive at Applicant's claimed invention. There must be something *in the prior art* that suggests the proposed combination, other than the hindsight gained from knowledge that the inventor choose to combine these particular things in this particular way. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988). The Examiner is also required to make specific findings on a suggestion to combine prior-art references. In Re Dembeczak, 175 F.3d 994, 1000-01, 50 USPQ2d 1614, 1617-19 (Fed. Cir. 1999). In this case, there is no teaching or suggestion whatsoever in Coronel et al. to add the "teachings" of McCay et al., and, in fact, McCay et al. does not actually teach what the Examiner argues the reference sets forth. Thus, even if these two references were combinable, Applicant's invention as claimed would not result.

Given that, in the opinion of Applicant, the Coronel/McCay is unjustified, the same argument applies to independent claim 11, as well as the dependent claims. Based upon the foregoing amendments and comments, Applicant believes all claims are in condition for allowance. Questions regarding this application may be directed to the undersigned attorney at the telephone/facsimile numbers provided.

Respectfully submitted,

By: _____

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